

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: ROUND POND	Lake Area (ha):	7.49
Town: GILFORD	Maximum depth (m):	3.3
County: Belknap	Mean depth (m):	1.4
River Basin: Merrimack	Volume (m ³):	101500
Latitude: 43°30'35" N	Relative depth:	1.1
Longitude: 71°20'36" W	Shore configuration:	1.13
Elevation (ft): 1643	Areal water load (m/yr):	2.89
Shore length (m): 1100	Flushing rate (yr ⁻¹):	2.10
Watershed area (ha): 42.2	P retention coeff.:	0.75
% watershed ponded: 0.0	Lake type:	natural

BIOLOGICAL:

6 February 1996

5 September 1995

DOM. PHYTOPLANKTON (% TOTAL)	#1	TABELLARIA 35%	ANACYSTIS 40%
	#2	(ALL ALGAE SPARSE)	PERIDINIUM 15%
	#3		MELOSIRA 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			38.41
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 60%	KERATELLA 62%
	#2		CILIATE SPP. 27%
	#3		
ROTIFERS/LITER		14	192
MICROCRUSTACEA/LITER		6	18
ZOOPLANKTON ABUNDANCE (#/L)		20	295
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			0.7
BOTTOM DISSOLVED OXYGEN (mg/L)		3.6	7.0
BACTERIA (E. coli, #/100 ml)	#1		10
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: ROUND POND

Town: GILFORD

	6 February 1996		5 September 1995		
DEPTH (m)	1.0	2.5	1.0		2.0
pH (units)	5.0	4.8	6.5		6.6
A.N.C. (Alkalinity)	0.3	-0.1	2.0		2.2
NITRATE NITROGEN	0.06	0.07	< 0.10		< 0.10
TOTAL KJELDAHL NITROGEN	0.30	0.20	0.85		0.92
TOTAL PHOSPHORUS	0.011	0.009	0.024		0.026
CONDUCTIVITY (μ mhos/cm)	24.9	26.0	21.8		21.7
APPARENT COLOR (cpu)	33	32	70		70
MAGNESIUM			0.28		
CALCIUM			2.0		
SODIUM			1.3		
POTASSIUM			< 0.40		
CHLORIDE	< 2	< 2	< 2		< 2
SULFATE			4		4
TN : TP	33	30	35		35
CALCITE SATURATION INDEX			4.2		

All results in mg/L unless indicated otherwise

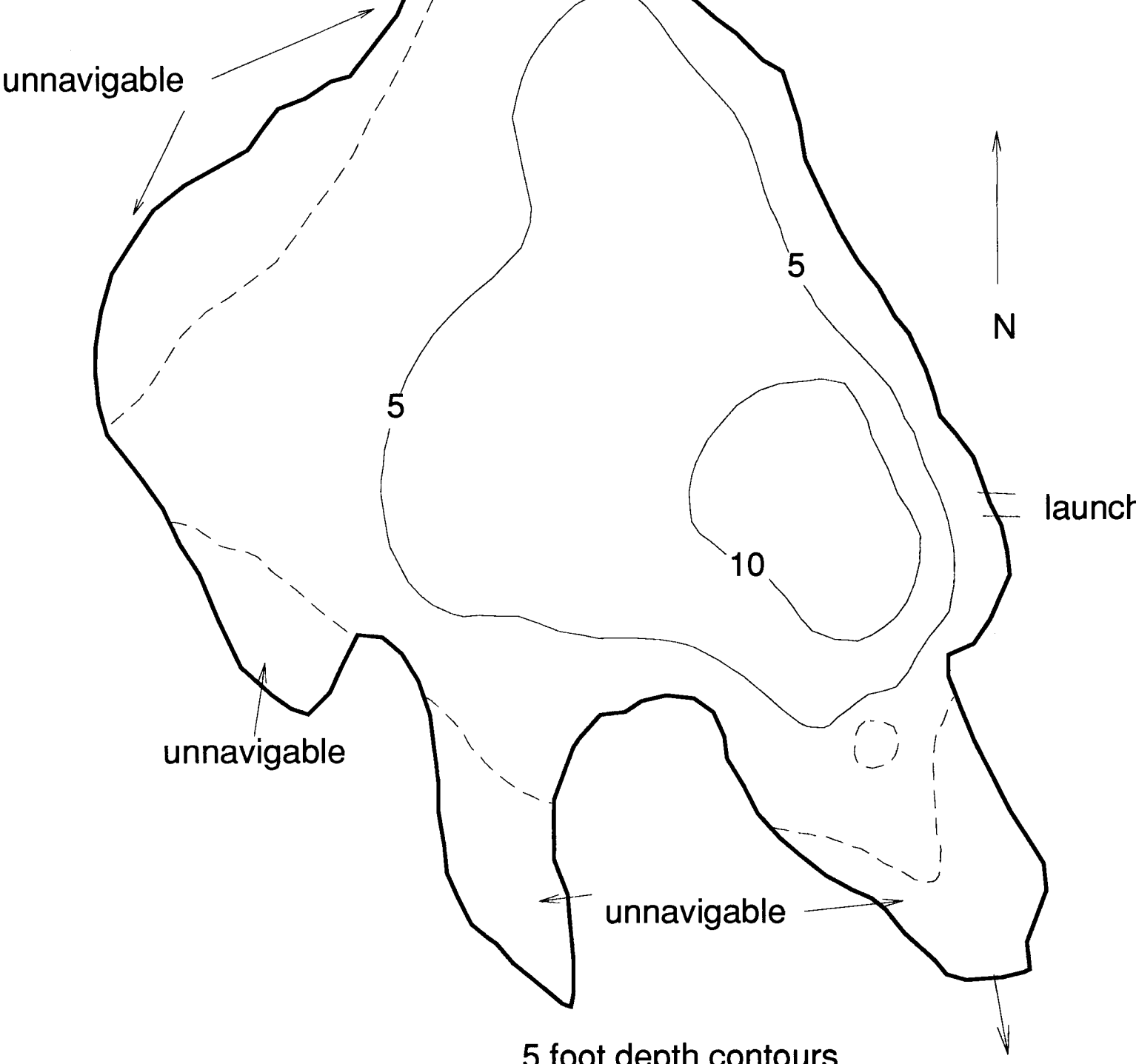
TROPHIC CLASSIFICATION: 1995

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	5	3	6	14	Eutro.

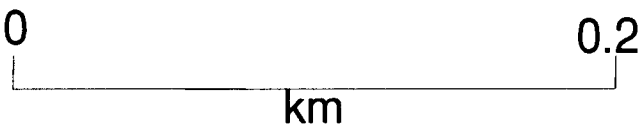
COMMENTS:

1. This is a remote pond, located on the southwest shoulder of Belknap Mountain, that was surveyed jointly with the Fish and Game Department.
2. This is a naturally eutrophic pond that was green with algal growth, which reduced visibility to a little over two feet. The dominant phytoplankton was a blue-green alga.
3. The pond was acidic in the winter but the summer algal bloom caused an artificial rise in pH in the summer.

Round Pond
Gilford



5 foot depth contours



LAKE: ROUND POND
DATE: 09/05/95

WEATHER: CLOUDY & WARM; SLIGHT BREEZE

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SECCHI DISK (m): 0.7
BOTTOM DEPTH (m): 3.3
TIME: 1100
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*Dissolved oxygen values are in mg/L

Round Pond Gilford



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